

A. Applicable Codes:	Year
1. International Building Code	2006
2. International Fire Code	2006
3. ADA Accessibility Guidelines	1994
4. National Electrical Code (NFPA 70)	2008
5. International Mechanical Code	2006
6. Utah State Fire Marshall Rule R710-4	N/A
7. National Fire Alarm Code (NFPA 72)	2007
B. Building Parameters:	
1. Occupancy Group:	Mixed (B, A-3, S-1)
2. Building Area:	17,800 Sq.Ft.
3. Stories:	One
4. Type of Construction:	Type IV-B
5. Fire Sprinklers:	No
6. Occupancy Separations:	None (Unseparated Occupancy IBC 508.3.2)
7. Allowable Area Increase for Side Yards:	0.75 (30' Yard on all 4 sides)
8. Allowable Area:	26,250 Sq.Ft.
C. Fire Alarm Design Requirements:	
1. Fire Alarm System Required:	Yes (IBC 907.2.1)
2. Occupant Notification:	Yes (IBC 907.2.1)
3. Visible Alarms:	Yes (IBC 907.9.1)
4. Manual Pull Stations:	Yes (IBC 907.3)
5. Smoke/Heat Detectors:	Yes (USFM R710-4)
6. Duct Smoke Detectors:	Yes (IBC 907.11)

FIRE ALARM SYSTEM GENERAL NOTES

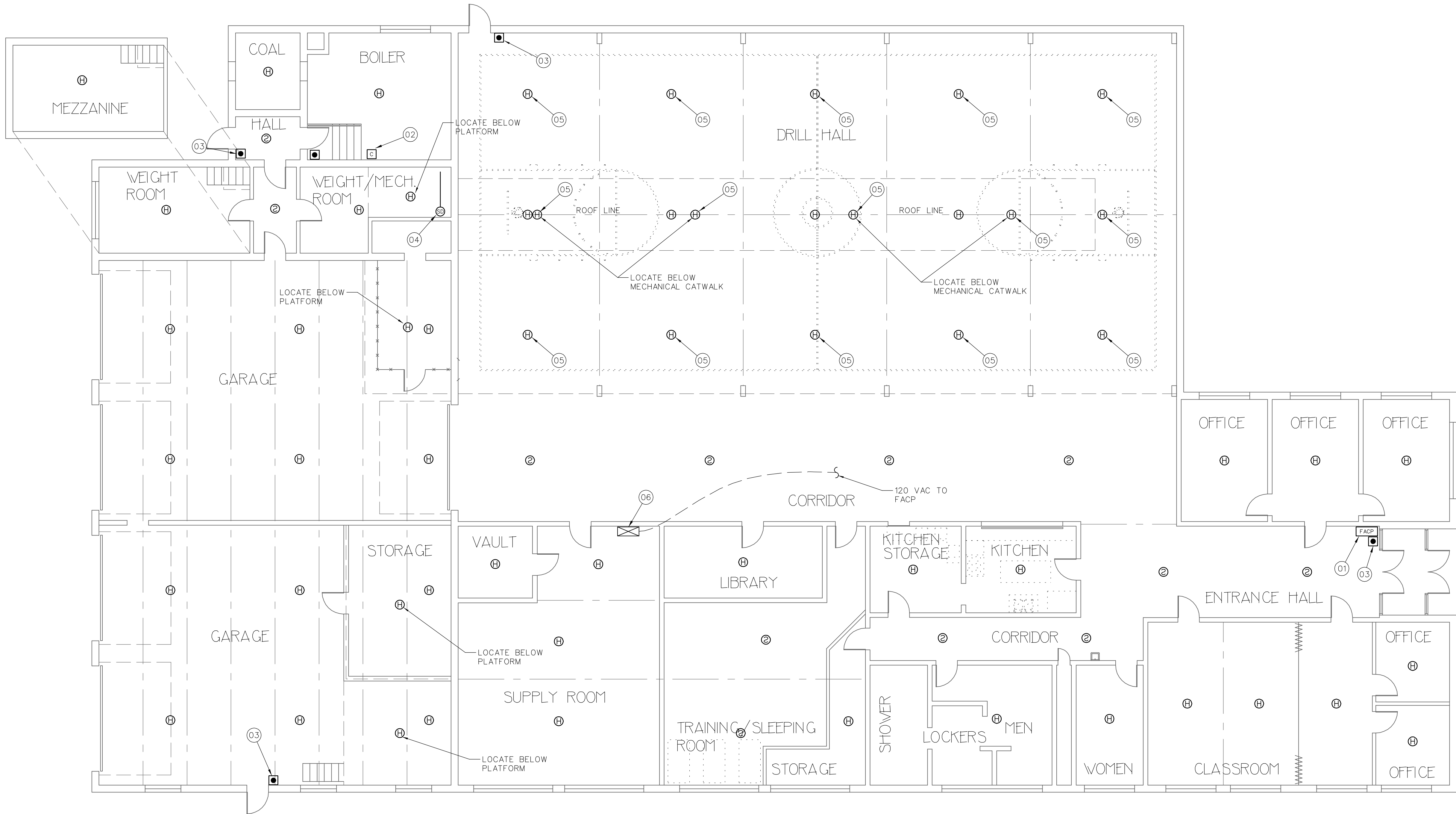
1. SCOPE OF WORK: WORK SHALL INCLUDE INSTALLATION OF NEW ADDRESSABLE FIRE ALARM SYSTEM TO PROTECT EXISTING BUILDING. NEW FIRE ALARM SYSTEM SHALL INCLUDE ALL REQUIRED CONTROL EQUIPMENT, POWER SUPPLY, CABINETS, INITIATING CIRCUITS AND DEVICES, NOTIFICATION APPLIANCE CIRCUITS AND DEVICES, SECONDARY POWER SUPPLY AND PHONE LINES FOR OFF PREMISE MONITORING. NEW FIRE ALARM SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 72, THESE DRAWINGS AND SPECIFICATIONS.
2. APPLICABLE CODES/STANDARDS: INTERNATIONAL BUILDING CODE - 2006 EDITION INTERNATIONAL FIRE CODE - 2006 EDITION UTAH STATE FIRE MARSHAL RULE R710-4 NFPA 70 - 2005 EDITION NFPA 72 - 2007 EDITION
3. QUALITY ASSURANCE: ALL EQUIPMENT, MATERIAL AND DEVICES USED FOR THE FIRE ALARM SYSTEM INSTALLATION SHALL BE UL LISTED AND/OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS. ALL INITIATING DEVICES SHALL BE LISTED COMPATIBLE WITH THE FIRE ALARM CONTROL PANEL (FACP). MAJOR SYSTEM COMPONENTS (CONTROL PANELS, INITIATING DEVICES, ADDRESSABLE MODULES AND RELAYS, POWER SUPPLIES, ETC.) SHALL BE FROM A STATE OF UTAH DFCM APPROVED MANUFACTURER. APPROVED MANUFACTURERS INCLUDE FIRE-LITE AND SILENT KNIGHT.
4. SUBMITTALS: FIRE ALARM SYSTEM CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS TO UTAH STATE FIRE MARSHAL'S OFFICE, OWNER AND ENGINEER FOR REVIEW/APPROVAL PRIOR TO ORDERING OR INSTALLING ANY EQUIPMENT. SUBMITTALS SHALL CONFORM TO THE CONSTRUCTION DOCUMENTS REQUIREMENTS OF IFC 907.1.1. SHOP DRAWINGS SHALL BE BASED ON THESE (ENGINEER'S) DRAWINGS.
5. SYSTEM TYPE: FIRE ALARM SYSTEM SHALL MEET THE REQUIREMENTS FOR PROTECTED PREMISE FIRE ALARM SYSTEMS. SYSTEM SHALL PROVIDE OFF-PREMISE NOTIFICATION OF STATUS TO CENTRAL STATION DETERMINED BY OWNER.
6. OCCUPANT NOTIFICATION: RECEIPT OF ANY FIRE ALARM SIGNAL AT THE FACP SHALL RESULT IN THE ACTIVATION OF ALL NOTIFICATION APPLIANCES IN THE BUILDING (STROBES AND HORN/STROBES). FOR PURPOSES OF FIRE ALARM NOTIFICATION, THE BUILDING SHALL BE CONSIDERED AS A SINGLE ZONE.
7. WIRING/CONDUIT: ALL WIRING SHALL BE NEW (EXISTING WIRING MAY NOT BE RE-USED) AND SHALL BE FREE OF OPENS, SHORTS AND GROUNDS. ALL WIRING SHALL BE INSTALLED IN RIGID CONDUIT OR EMT. FLEXIBLE CONDUIT MAY BE USED FOR DROPS TO SINGLE DEVICES (MAXIMUM 6'). MINIMUM CONDUIT SIZE SHALL BE 1/2" CONDUIT MAY BE RUN EXPOSED IN ALL AREAS AND SHALL BE HELD TIGHT TO WALL, CEILING OR ROOF DECK. EXPOSED CONDUIT NEED NOT BE PAINTED BUT SHALL BE INTERMITTENTLY MARKED WITH RED TAPE OR PAINT. ALL PENETRATIONS THROUGH RATED PARTITIONS SHALL BE FIRE STOPPED WITH A SUITABLE CAULKING COMPOUND. ALL WIRING USED IN THE FIRE ALARM SYSTEM SHALL BE FPL (FIRE, POWER LIMITED) WITH MINIMUM 300V INSULATION OR EQUIVALENT AS PER NFPA 70 ARTICLE 760.
8. WIRING STYLES (PER NFPA 72): INITIATING DEVICE CIRCUITS SHALL MEET THE REQUIREMENTS FOR CLASS A STYLE D CIRCUITS. SIGNALING LINE CIRCUITS SHALL MEET THE REQUIREMENTS FOR CLASS A STYLE 6 OR 7 CIRCUITS. NOTIFICATION APPLIANCE CIRCUITS SHALL MEET THE REQUIREMENTS FOR CLASS A STYLE Z.

9. POWER: PROVIDE NEW 120VAC 20 AMP CIRCUIT FROM EXISTING POWER DISTRIBUTION PANEL IN SUPPLY ROOM TO PROVIDE PRIMARY POWER TO NEW FACP. FURNISH A BATTERY BACKUP TO PROVIDE SECONDARY POWER SUPPLY TO FIRE ALARM SYSTEM. BATTERY BACKUP SHALL BE OF SUFFICIENT CAPACITY TO PROVIDE 24 HOURS OF STANDBY POWER WITH AN ADDITIONAL RESERVE TO OPERATE THE SYSTEM FOR 5 MINUTES IN FULL ALARM.
10. INITIATING DEVICES: DUCT SMOKE DETECTOR: INSTALL DUCT SMOKE DETECTOR IN SUPPLY DUCTS OF AIR HANDLER. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. SMOKE DETECTORS: PROVIDE SMOKE DETECTORS WHERE SHOWN ON PLANS IN ALL CORRIDORS AND LOBBIES AND SLEEPING AREAS. MAXIMUM SPACING OF DETECTORS SHALL BE 30' BETWEEN DETECTORS OR 15' FROM FURTHEST WALL. MANUAL PULL STATIONS: INSTALL PULL STATIONS AT EACH EXIT IN BOILER ROOM. INSTALL PULL STATION WITH OPERATING ELEMENT LOCATED AT 48" ABOVE EXISTING FLOOR LEVEL. HEAT DETECTORS: PROVIDE HEAT DETECTORS WHERE SHOWN ON PLANS IN ALL AREAS NOT PROTECTED WITH SMOKE DETECTORS. MAXIMUM SPACING FOR HEAT DETECTORS SHALL BE 50' BETWEEN DETECTORS OR 25' FROM FURTHEST WALL.

11. NOTIFICATION APPLIANCES: PROVIDE AUDIBLE AND VISUAL NOTIFICATION APPLIANCES THROUGHOUT BUILDING. VOLUME OF HORNS SHALL BE SUFFICIENT TO PROVIDE A SOUND LEVEL OF 15 DB ABOVE AMBIENT IN ALL OCCUPIED AREAS. VISIBLE ALARMS SHALL BE PROVIDED THROUGHOUT ALL OCCUPIED AREAS OF THE BUILDING INCLUDING PRIVATE OFFICES AND AREAS WITH POSSIBLE OCCUPANCY BY HEARING IMPAIRED PERSONS. STROBES SHALL FLASH IN SYNCHRONIZATION. CONFIGURE CIRCUITS TO ALLOW HORNS TO BE SILENCED WHILE STROBES CONTINUE TO FLASH.
12. FIRE SAFETY FUNCTIONS: CONTROL MODULE WITH RELAY CONTACTS SHALL BE INSTALLED AND PROGRAMMED TO PROVIDE FAN SHUTDOWN. THE CONTROL RELAY MODULE SHALL BE INSTALLED WITHIN 36" OF HVAC CONTROLS AND SHOULD BE LABELED "HVAC SHUTDOWN".
13. TESTING: SCHEDULE AND PERFORM ALL ACCEPTANCE TESTS REQUIRED BY NFPA 72. TESTING SHALL BE WITNESSED BY STATE FIRE MARSHAL'S OFFICE, PROJECT ENGINEER, DFCM AND BUILDING MAINTENANCE PERSONNEL. SUBMIT A WRITTEN TESTING PLAN DETAILING EACH TEST TO BE PERFORMED TO EACH AGENCY AT LEAST ONE DAY PRIOR TO SCHEDULED TEST.

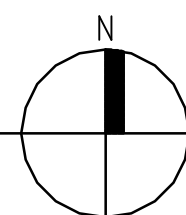
FIRE ALARM SYSTEM KEY NOTES

- 01 FURNISH AND INSTALL NEW ADDRESSABLE FIRE ALARM CONTROL PANEL (FACP) SURFACE MOUNT FACP ON BLOCK WALL JUST INSIDE MAIN BUILDING ENTRY. INSTALL FACP WITH KEYPAD AT 60" ABOVE FLOOR LEVEL. FACP SHALL BE SILENT KNIGHT 5820 XL OR FIRE-LITE MS-9000 WITH DACT-UD. EXTEND PHONE LINES (PRIMARY AND SECONDARY) FROM EXISTING TELEPHONE TERMINAL BOARD TO FACP TO PROVIDE OFF-PREMISE MONITORING.
- 02 FURNISH AND INSTALL A PROGRAMMABLE RELAY TO SHUT DOWN AIR HANDLER. RELAY SHALL BE NORMALLY ENERGIZED AND FAN CONTROLS SHALL BE CONNECTED TO NORMALLY CLOSED CONTACTS ON THE RELAY. RELAY SHALL BE PROGRAMMED TO SHUT DOWN ALL AIR HANDLERS SIMULTANEOUSLY UPON ACTIVATION OF ANY AREA OR DUCT SMOKE DETECTOR AND SHALL NOT RESTORE UNTIL THE FACP HAS RESET. FIELD LOCATE RELAY.
- 03 FURNISH AND INSTALL TAMPER-PROOF ENCLOSURE WITH AUDIBLE TAMPER ALARM ON NEW MANUAL PULL STATION (STH100 OR EQUAL).
- 04 FURNISH AND INSTALL DUCT SMOKE DETECTOR ON THE SUPPLY SIDE OF HVAC UNIT. MOUNT DETECTOR IN ENCLOSURE MOUNTED ON THE SIDE OF THE DUCT WITH SAMPLING TUBE LOCATED WITHIN DUCT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 05 FURNISH AND INSTALL PROTECTIVE ENCLOSURE FOR HEAT DETECTORS IN DRILL HALL. ENCLOSURE SHALL NOT IMPEDE PASSAGE OF HEAT TO DETECTOR.
- 06 RUN DEDICATED 120 VAC POWER CIRCUIT FROM PANEL LOCATED IN SUPPLY ROOM TO FIRE ALARM CONTROL PANEL.



ARMORY FIRE ALARM PLAN (INITIATING DEVICES)

1/8" = 1'-0"
0 8' 16' 32'



FIRE ALARM EQUIPMENT LEGEND

DEVICE	DESCRIPTION	MOUNTING	REMARKS
	ADDRESSABLE FIRE ALARM CONTROL PANEL	SURFACE MOUNT ON WALL WITH KEYPAD AT 60" AFF	SILENT KNIGHT MODEL 5820XL OR FIRE-LITE MS-9000 WITH DACT-UD
	EXISTING ELECTRICAL PANEL	EXISTING	PROVIDE NEW DEDICATED 120 VAC POWER CIRCUIT FOR FACP
	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR	CEILING MOUNTED ON SURFACE MOUNT J-BOX	INSTALL SMOKE DETECTORS IN ALL CORRIDORS AND LOBBIES AT A MAXIMUM SPACING OF 30' O.C.
	ADDRESSABLE HEAT DETECTOR (FIXED TEMP.)	CEILING MOUNTED ON SURFACE MOUNT J-BOX	INSTALL NEW HEAT DETECTORS IN ALL ROOMS WITHOUT SMOKE DETECTORS AT A MAXIMUM SPACING OF 50' O.C.
	DUCT SMOKE DETECTOR	DUCT MOUNT ON SUPPLY SIDE OF AIR HANDLER	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
	ADDRESSABLE MANUAL PULL STATION	WALL MOUNT WITH OPERATING ELEMENT AT 48" AFF ON SURFACE MOUNT J-BOX	INSTALL PULL STATION AT EACH BUILDING EXIT AND IN BOILER ROOM
	ADDRESSABLE CONTROL RELAY	MOUNT ON J-BOX WITHIN 3' OF DEVICE OR CIRCUIT CONTROLLER	TO PROVIDE FAN SHUTDOWN
	FIRE ALARM HORN/STROBE	CEILING MOUNTED ON SURFACE MOUNT J-BOX	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED
	FIRE ALARM HORN/STROBE	WALL MOUNT ON SURFACE MOUNT J-BOX BETWEEN 80" AND 90" AFF	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED
	FIRE ALARM STROBE	CEILING MOUNTED ON SURFACE MOUNT J-BOX	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED
	EXTERIOR FIRE ALARM HORN/STROBE	WALL MOUNTED ON NEW WEATHERPROOF J-BOX AT 10' ABOVE EXTERIOR GRADE	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED

UTAH NATIONAL GUARD - BEAVER ARMORY
BEAVER, UTAH

FIRE ALARM SYSTEM INSTALLATION
DFCM PROJECT #07212470

ARMORY
FIRE ALARM PLAN
(INITIATING DEVICES)
FA-1

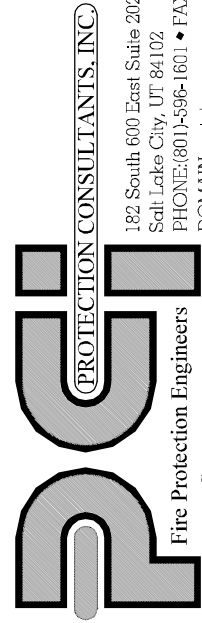
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CHECKED BY: GTJ

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FIRE ALARM SYSTEM GENERAL NOTES

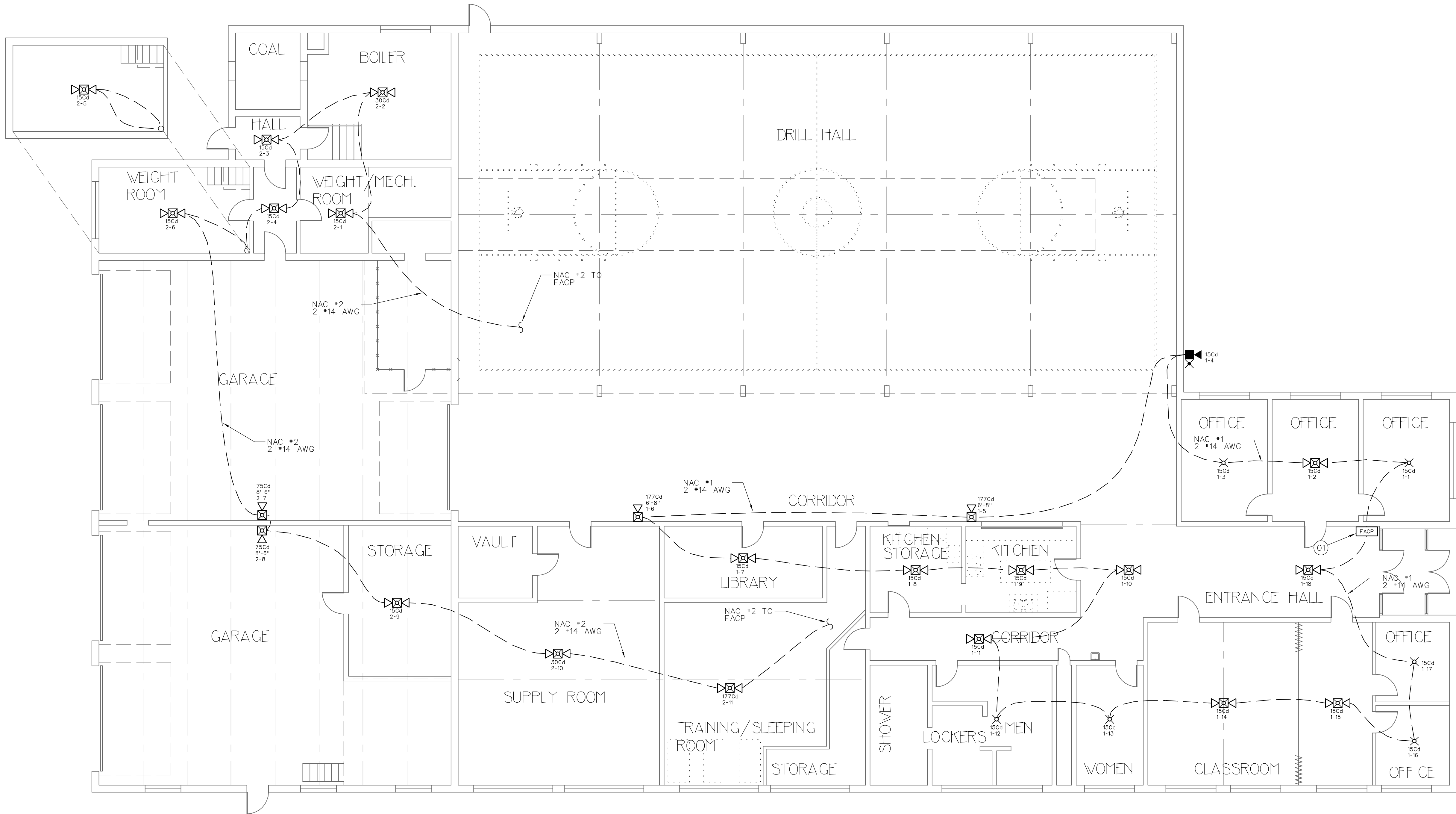
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- MANUAL PULL STATIONS: INSTALL PULL STATIONS AT EACH EXIT IN BOILER ROOM. INSTALL PULL STATION WITH OPERATING ELEMENT LOCATED AT 48" ABOVE EXISTING FLOOR LEVEL.
- HEAT DETECTORS: PROVIDE HEAT DETECTORS WHERE SHOWN ON PLANS IN ALL AREAS NOT PROTECTED WITH SMOKE DETECTORS. MAXIMUM SPACING FOR HEAT DETECTORS SHALL BE 50' BETWEEN DETECTORS OR 25' FROM FURTHEST WALL.

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12. FIRE SAFETY FUNCTIONS: CONTROL MODULE WITH RELAY CONTACTS SHALL BE INSTALLED AND PROGRAMMED TO PROVIDE FAN SHUTDOWN. THE CONTROL RELAY MODULE SHALL BE INSTALLED WITHIN 36" OF HVAC CONTROLS AND SHOULD BE LABELED "HVAC SHUTDOWN".
13. TESTING: SCHEDULE AND PERFORM ALL ACCEPTANCE TESTS REQUIRED BY NFPA 72. TESTING SHALL BE WITNESSED BY STATE FIRE MARSHAL'S OFFICE, PROJECT ENGINEER, DFCM AND BUILDING MAINTENANCE PERSONNEL. SUBMIT A WRITTEN TESTING PLAN DETAILING EACH TEST TO BE PERFORMED TO EACH AGENCY AT LEAST ONE DAY PRIOR TO SCHEDULED TEST.

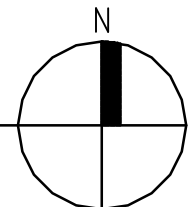
FIRE ALARM SYSTEM KEY NOTES

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- 03 FURNISH AND INSTALL TAMPER-PROOF ENCLOSURE WITH AUDIBLE TAMPER ALARM ON NEW MANUAL PULL STATION (STH100 OR EQUAL).
- 04 FURNISH AND INSTALL DUCT SMOKE DETECTOR ON THE SUPPLY SIDE OF HVAC UNIT. MOUNT DETECTOR IN ENCLOSURE MOUNTED ON THE SIDE OF THE DUCT WITH SAMPLING TUBE LOCATED WITHIN DUCT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 05 FURNISH AND INSTALL PROTECTIVE ENCLOSURE FOR HEAT DETECTORS IN DRILL HALL. ENCLOSURE SHALL NOT IMPEDE PASSAGE OF HEAT TO DETECTOR.
- 06 RUN DEDICATED 120 VAC POWER CIRCUIT FROM PANEL LOCATED IN SUPPLY ROOM TO FIRE ALARM CONTROL PANEL.



ARMORY FIRE ALARM PLAN (NOTIFICATION APPLIANCES)

1/8" = 1'-0"
0 8' 16' 32'



FIRE ALARM EQUIPMENT LEGEND

DEVICE	DESCRIPTION	MOUNTING	REMARKS
FACP	ADDRESSABLE FIRE ALARM CONTROL PANEL	SURFACE MOUNT ON WALL WITH KEYPAD AT 60" AFF	SILENT KNIGHT MODEL 5820XL OR FIRE-LITE MS-9000 WITH DACT-UD
⊠	EXISTING ELECTRICAL PANEL	EXISTING	PROVIDE NEW DEDICATED 120 VAC POWER CIRCUIT FOR FACP
⊙	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR	CEILING MOUNTED ON SURFACE MOUNT J-BOX	INSTALL SMOKE DETECTORS IN ALL CORRIDORS AND LOBBIES AT A MAXIMUM SPACING OF 30' O.C.
⊕	ADDRESSABLE HEAT DETECTOR (FIXED TEMP.)	CEILING MOUNTED ON SURFACE MOUNT J-BOX	INSTALL NEW HEAT DETECTORS IN ALL ROOMS WITHOUT SMOKE DETECTORS AT A MAXIMUM SPACING OF 50' O.C.
⊖	DUCT SMOKE DETECTOR	DUCT MOUNT ON SUPPLY SIDE OF AIR HANDLER	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
⊞	ADDRESSABLE MANUAL PULL STATION	WALL MOUNT WITH OPERATING ELEMENT AT 48" AFF ON SURFACE MOUNT J-BOX	INSTALL PULL STATION AT EACH BUILDING EXIT AND IN BOILER ROOM
⊟	ADDRESSABLE CONTROL RELAY	MOUNT ON J-BOX WITHIN 3' OF DEVICE OR CIRCUIT CONTROLLER	TO PROVIDE FAN SHUTDOWN
⊠⊠	FIRE ALARM HORN/STROBE	CEILING MOUNTED ON SURFACE MOUNT J-BOX	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED
⊠⊟	FIRE ALARM HORN/STROBE	WALL MOUNT ON SURFACE MOUNT J-BOX BETWEEN 80" AND 90" AFF	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED
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⊠⊠⊠	EXTERIOR FIRE ALARM HORN/STROBE	WALL MOUNTED ON NEW WEATHERPROOF J-BOX AT 10' ABOVE EXTERIOR GRADE	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED

UTAH NATIONAL GUARD - BEAVER ARMORY
BEAVER, UTAH

FIRE ALARM SYSTEM INSTALLATION
DFCM PROJECT #07212470

ARMORY
FIRE ALARM PLAN
(NOTIFICATION APPLIANCES)
FA-2

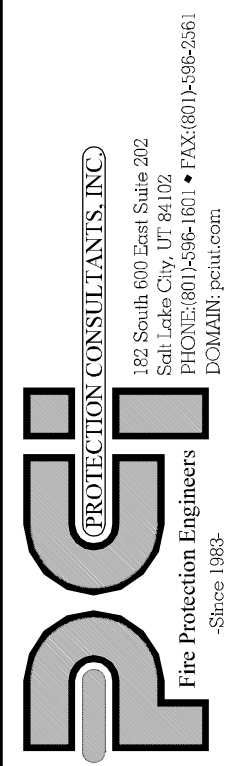
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CHECKED BY: GTJ

REVISIONS:

DRAWING DATE: 11/27/07

REVISION DATE: XXXX/07



POWER PROVIDE NEW 120VAC 20 AMP CIRCUIT FROM EXISTING POWER DISTRIBUTION PANEL IN SUPPLY ROOM TO PROVIDE STANDBY POWER TO NEW TACP, FLUNGCH & BATTERY BACKUP TO PROVIDE SECONDARY POWER SUPPLY TO FIRE ALARM SYSTEM. BATTERY BACKUP SHALL BE OF SUFFICIENT CAPACITY TO PROVIDE 24 HOURS OF STANDBY POWER WITH AN AUTOMATIC RESERVE TO OPERATE THE SYSTEM FOR 5 MINUTES IN FULL ALARM.

INITIATING DEVICES:

DUCT SMOKE DETECTOR: INSTALL DUCT SMOKE DETECTOR IN SUPPLY DUCTS OF AIR HANDLER. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

SMOKE DETECTORS: PROVIDE SMOKE DETECTORS WHERE SHOWN ON PLANS IN ALL CORRIDORS AND LOBBIES AND SLEEPING AREAS. MAXIMUM SPACING OF DETECTORS SHALL BE 30' BETWEEN DETECTORS OR 1/5 FROM FURTHEST WALL.

PULL STATIONS: INSTALL PULL STATIONS AT EACH EXIT IN BOILER ROOM. INSTALL PULL STATION WITH OPERATING ELEMENT LOCATED AT 48" ABOVE EXISTING FLOOR LEVEL.

HEAT DETECTORS: PROVIDE HEAT DETECTORS WHERE SHOWN ON PLANS IN ALL AREAS NOT PROTECTED WITH SMOKE DETECTORS. MAXIMUM SPACING FOR HEAT DETECTORS SHALL BE 30' BETWEEN DETECTORS OR 25' FROM FURTHEST WALL.

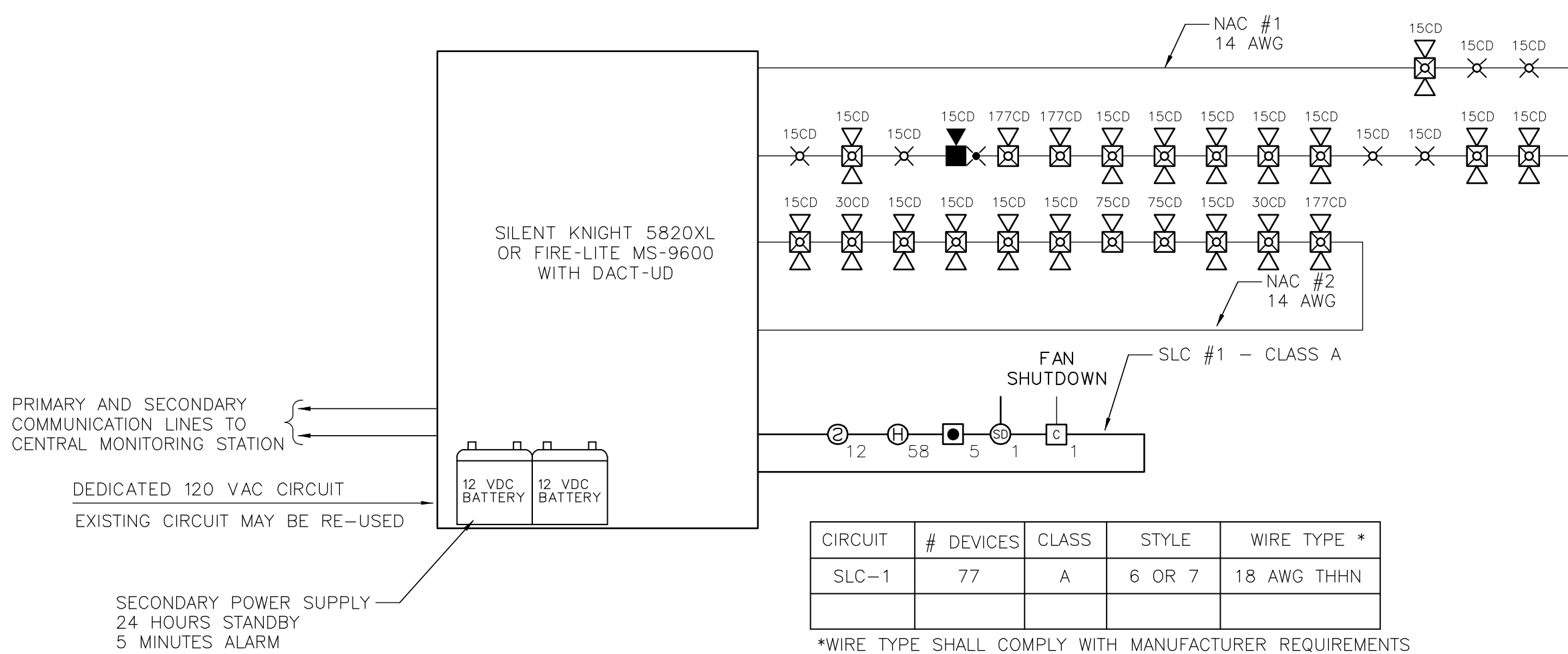
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12. FIRE SAFETY FUNCTIONS: CONTROL MODULE WITH RELAY CONTACTS SHALL BE INSTALLED AND PROGRAMMED TO PROVIDE FIRE SHUTDOWN. THE CONTROL RELAY MODULE SHALL BE INSTALLED WITHIN 16" OF HVAC CONTROLS AND SHOULD BE LABELED "HVAC SHUTDOWN".

13. TESTING: SCHEDULE AND PERFORM ALL ACCEPTANCE TESTS REQUIRED BY NFPA 72. TESTING SHALL BE WITNESSED BY STATE FIRE MARSHAL'S OFFICE, PROJECT ENGINEER, DFCM AND BUILDING MAINTENANCE PERSONNEL. SUBMIT A WRITTEN TESTING REPORT DETAILING EACH TEST TO BE PERFORMED TO EACH AGENCY AT LEAST ONE DAY PRIOR TO SCHEDULED TEST.

- (01) FURNISH AND INSTALL NEW ADDRESSABLE FIRE ALARM CONTROL PANEL (FACP) SURFACE MOUNT FACP ON BLOCK WALL JUST INSIDE MAIN BUILDING ENTRY. INSTALL FACP WITH KEYPAD AT 60" ABOVE FLOOR LEVEL. FACP SHALL BE SUPPLIED WITH 5800 MA CURRENT RATED 24VDC BATTERY WITH DUCT-UP EXTEND PHONE LINES (PRIMARY AND SECONDARY) FROM EXISTING TELEPHONE TERMINAL BOARD TO FACP TO PROVIDE OFF-PREMISE MONITORING.
- (02) FURNISH AND INSTALL A PROGRAMMABLE RELAY TO SHUT DOWN AIR HANDLER. RELAY SHALL BE NORMALLY ENERGIZED AND FAN CONTROLS SHALL BE WIRED TO NORMAL TO NORMALLY CLOSED CONTACTS ON THE RELAY. RELAY SHALL BE PROGRAMMED TO SHUT DOWN ALL AIR HANDLERS SIMULTANEOUSLY UPON DETECTION OF ANY AREA OR ZONE MONITORED BY DETECTOR. NO RESTORE UNTIL THE FACP HAS RESET. FIELD LOCATE RELAY.
- (03) FURNISH AND INSTALL TAMPER-PROOF ENCLOSURE WITH AUDIBLE TAMPER ALARM ON NEW MANUAL PULL STATION (ST11000 OR EQUAL).
- (04) FURNISH AND INSTALL DUCT SMOKE DETECTOR ON THE SUPPLY SIDE OF HVAC UNIT. MOUNT DETECTOR IN ENCLOSURE MOUNTED ON THE SIDE OF THE DUCT WITH SAMPLING TUBE LOCATED WITHIN DUCT. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- (05) FURNISH AND INSTALL PROTECTIVE ENCLOSURE FOR HEAT DETECTORS IN DRILL HALL. ENCLOSURE SHALL NOT IMPEDE PASSAGE OF HEAT TO DETECTOR
- (06) RUN DESIGNATED 120 VAC POWER CIRCUIT FROM PANEL LOCATED IN SUPPLY ROOM TO FIRE ALARM CONTROL PANEL.

CIRCUIT	NUMBER OF CONDUCTORS	CIRCUIT CLASS	CIRCUIT STYLE	WIRE GAUGE (MIN)	GRAPHIC DESIGNATION
NOTIFICATION APPLIANCE CIRCUIT (NAC)	2 OR 4	A	Z	14 AWG	— — — — —
SIGNALING LINE CIRCUIT (SLC)	2	A	6 OR 7	18 AWG	— — — — —

[illegible]

3 FIRE ALARM RISER SCHEMATIC

FIRE ALARM EQUIPMENT LEGEND			
DEVICE	DESCRIPTION	MOUNTING	REMARKS
	ADDRESSABLE FIRE ALARM CONTROL PANEL	SURFACE MOUNT ON WALL WITH KEYPAD AT 60" AFF	SILENT KNIGHT MODEL 5800UL OR FIRE-LIFE MS-8600 WITH DACT-UD
	EXISTING ELECTRICAL PANEL	EXISTING	PROVIDE NEW DEDICATED 120 VAC POWER CIRCUIT FOR FACP
	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR	CEILING MOUNTED ON SURFACE MOUNT J=BOX	INSTALL SMOKE DETECTORS IN ALL CORRIDORS AND LOBBIES AT A MAXIMUM SPACING OF 30' O.C.
	ADDRESSABLE HEAT DETECTOR (FIXED TEMP.)	CEILING MOUNTED ON SURFACE MOUNT J=BOX	INSTALL NEW HEAT DETECTORS IN ALL ROOMS WITHOUT SMOKE DETECTORS AT A MINIMUM SPACING OF 50' O.C.
	DUCT SMOKE DETECTOR	DUCT MOUNT ON SUPPLY SIDE OF AIR HANDLER	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
	ADDRESSABLE MANUAL PULL STATION	WALL MOUNT WITH OPERATING ELEMENT AT 48" AFF ON SURFACE MOUNT J=BOX	INSTALL PULL STATION AT EACH BUILDING EXIT AND IN BOILER ROOM
	ADDRESSABLE CONTROL RELAY	MOUNT ON J=BOX WITHIN 3' OF DEVICE OR CIRCUIT CONTROLLED	TO PROVIDE FAN SHUTDOWN.
	FIRE ALARM HORN/STROBE	CEILING MOUNTED ON SURFACE MOUNT J=BOX	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED.
	FIRE ALARM HORN/STROBE	WALL MOUNT ON SURFACE MOUNT J=BOX BETWEEN 80" AND 96" AFF	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED.
	FIRE ALARM STROBE	CEILING MOUNTED ON SURFACE MOUNT J=BOX	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED.
	EXTERIOR FIRE ALARM HORN/STROBE	WALL MOUNTED ON NEW WEATHERPROOF J=BOX AT 10' ABOVE EXTERIOR GRADE	CANDELA RATING OF STROBE SHALL BE AS INDICATED ON DRAWINGS. STROBES SHALL BE SYNCHRONIZED WITH ALL OTHER STROBES IN VIEW. COLOR SHALL BE RED.

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FIRE ALARM SYSTEM INSTALLATION
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DETAILS
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